GAMING MACHINE

FIELD OF THE INVENTION

[0001] This invention relates to a gaming machine, and particularly to a gaming machine of the type for individual play that typically is known as a 'slot machine', 'fruit machine', 'poker machine', or the like. The invention particularly relates to a gaming machine of the type having mechanical spinning reels (typically 3 to 5 in number) that, in the play of a game, are set spinning by the player and after a predetermined period of time come to a halt, with the result of the play depending upon the displayed combination of the indicia on each reel along horizontal and/or, diagonal 'win lines'.

BACKGROUND OF THE INVENTION

[0002] Mechanical spinning reel gaming machines are well known, and are commonly referred to within the industry as 'stepper' machines because of being implemented by use of electrical stepper motors. Mechanical reel gaming machines are operable by player-activated pushbutton controls and/or a mechanical lever arm.

[0003] Gaming machines that utilize a video monitor to graphically represent the spinning reels also are well known. Such gaming machines similarly incorporate pushbutton controls, although more recently provide for touch screen control by means of controls bonded to the outer surface of the video monitor. There are difficult technical problems associated with bonding touch screen controllers to curved video monitor screens, requiring the use of packing materials at the edge margins and sophisticated data processing techniques to ensure a regular array of touchable screen 'points' and linearity between such points.

[0004] Even though video gaming machines utilize more technologically-advanced component parts, there still is a significant demand amongst players of gaming machines for the older-style spinning reel machine.

[0005] The present invention broadly provides a mechanical spinning reel gaming machine that incorporates touch screen controls.

SUMMARY OF THE INVENTION

[0006] Therefore, in one broad form, the invention discloses a gaming machine comprising one or more mechanical spinning game reels, a flat transparent panel located in front of the reels and through which the reels can be viewed, touch screen circuitry bonded to the flat panel, and control means for receiving signals from the touch screen circuitry and controlling the play of a game, including spinning of the reels.

[0007] In one preferred form, the touch screen circuitry can be bonded to the exterior surface of the panel. Alternatively, the touch screen circuitry can be applied to the interior surface of the panel. The gaming machine can be mounted in a cabinet or housing, with the panel forming a component part of the exterior surface of the cabinet or housing.

[0008] In a particularly preferred form, a graphical transfer also can be attached to the panel. The transfer most preferably will be attached to the interior surface of the panel.

[0009] The invention further discloses a gaming machine assembly comprising a flat transparent panel and touch screen circuitry applied to a surface of the panel.

[0010] A particular advantage of the invention arises for the gaming machine manufacturer, in that there is great flexibility in the configuration of mechanical spinning reel machines that was not otherwise easily achievable. Furthermore, there are significant commercial advantages for the manufacturer given that it is believed there will be great player acceptability of gaming machines embodying the invention. It is also believed that there will be savings in the manufacturing unit cost of such a gaming machine because the cost of implementation of the touch screen circuitry will be less than the cabinet work, circuitry and components of the conventional pushbutton controls that are replaced.

BRIEF DESCRIPTION OF THE DRAWINGS

[0011] An embodiment of the invention now will be described with reference to the accompanying drawings, in which:

[0012] **FIG. 1** is a front view of a conventional mechanical spinning reel gaming machine;

[0013] **FIG. 2** is a schematic block diagram of a gaming machine embodying the present invention;

[0014] **FIG. 3** is a cross-sectional view of the screen of the gaming machine of **FIG. 2**;

[0015] **FIG. 4** is a front view of the touch screen of **FIG. 3**;

[0016] **FIGS. 5 and 6** show the mechanical arrangement of the touch screen circuitry applied to the flat screen of the gaming machine; and

[0017] **FIGS. 7***a* to **7***b* are component schematic block diagrams of the touch screen controller unit.

DESCRIPTION OF PREFERRED EMBODIMENTS AND BEST MODE

[0018] **FIG. 1** shows a conventional (prior art) mechanical spinning reel gaming machine **10** that includes a housing (or cabinet) **12**, a control panel **14**, and a front flat screen **16**, usually fabricated from glass or a transparent plastics material, and behind which (i.e. inside the cabinet) is located the mechanical spinning reel assembly **18**. The operation of the gaming machine **10** is by an electronic controller (not shown) located within the cabinet **12** and having connection with the control panel **14** and the spinning reel assembly **18**.

[0019] As is well known, the play of the gaming machine **10** occurs by the player typically selecting the number of units to be wagered by means of one(s) of the pushbuttons **20**, and possibly also the number of "win lines" to be activated, followed by activation of the "play" pushbutton. The controller then causes the individual reels **22** to be set into spinning motion and to stop at predetermined times, with the outcome of that player of the game being represented by the indicia appearing along the win line(s).

[0020] Referring now to FIGS. **2-4**, a gaming machine **30** embodying the invention will now be described. As with a conventional mechanical spinning reel gaming machine, the present gaming machine **30** has a flat front screen **16**. As particularly shown in **FIG. 3**, the flat screen **16** has bonded